HOUSE OF REPRESENTATIVES LOCAL BILL STAFF ANALYSIS

BILL #: HB 1025 Pasco County/Sewage Treatment Facility Discharges
SPONSOR(S): Murphy
TIED BILLS: **IDEN./SIM. BILLS:**

REFERENCE	ACTION	ANALYST	STAFF DIRECTOR or BUDGET/POLICY CHIEF
1) Local & Federal Affairs Committee	15 Y, 0 N	Dougherty	Rojas
2) State Affairs Committee			

SUMMARY ANALYSIS

HB 1025 allows Pasco County to use reclaimed water from sewage treatment facilities to restore impaired wetlands and lakes that are altered due to drainage, pumping, or other factors. Specifically, the county is interested in natural system rehydration and treatment to restore, recover, and enhance the impacted ecosystem of Crews Lake. Currently, the county uses reclaimed water to recharge the groundwater system through irrigation of lands, parks, and golf courses; industrial uses; and rapid infiltration basins.

Florida's extensive reclaimed water rules encourage and promote reclaimed water use. Properly treated reclaimed water has proven to be safe for environmental uses. Reclaimed water has been promoted, developed, and used in Florida for over 40 years with no reclaimed water-related illnesses.

This bill has no fiscal impact.

FULL ANALYSIS

I. SUBSTANTIVE ANALYSIS

A. EFFECT OF PROPOSED CHANGES:

Present Situation

Reclaimed Water

Importance of Reclaimed Water

As water is used within a community, inevitably a significant portion of that water is dirtied and is discharged to the municipal sewer system for treatment in a domestic wastewater treatment facility. A large portion of this water can be cleaned and distributed back into the community for a variety of uses. Reclaimed water is clear, odorless, high quality water source.

Water reuse is an important component of both wastewater management and water resource management in Florida. Reuse offers an environmentally sound means for managing wastewater that dramatically reduces environmental impacts associated with discharge of wastewater effluent to surface waters. In addition, use of reclaimed water provides an alternative water supply for many activities that do not require potable quality water (like irrigation and toilet flushing), which serves to conserve available supplies of potable quality water. Some types of reuse offer the ability to recharge and augment available water supplies with high-quality reclaimed water.

With population growth and finite freshwater resources, Florida will see increased demands for water and increased volumes of wastewater, which must be managed to prevent pollution.

Sanitation Process

Strict requirements for the design, operation, and monitoring of reclaimed water system facilities ensure that reclaimed water can be safely used for landscape irrigation and other purposes. Municipal reuse facilities treat the water with a six-step process before delivering it to consumers through a reclaimed water distribution system. Reclaimed water that has been treated to this level is essentially pathogen-free, sparkling clear and can safely be used for irrigation, cooling, and other industrial purposes.

The wastewater-to-reclaimed water process[1] involves the following steps:

1. screening and other processes to remove sand and debris;
2. sedimentation for removing large solids;
3. aeration to allow microorganisms to break down organic materials;
4. clarification to remove those microorganisms and any remaining solids;
5. filtration to make water clear;
6. disinfection, with chlorine or UV radiation, to kill pathogens and bacteria.

Safety

Decades of historical data demonstrate that both urban and agricultural irrigation use of reclaimed water is a safe and effective water supply. Existing literature addresses quality and safety questions about the use of reclaimed water. For example, a WateReuse Foundation study in 2009 stated that "reclaimed, surface and ground water more similar than dissimilar."[2] A 2005 study by the same researchers found no incidences of illness or disease from either microbial pathogens or chemicals, and concluded that risks of using reclaimed water are not measurably different than risks associated with irrigation using potable water.[3] The Florida Department of Environmental Protection (DEP) found

[1] This is one process and is used by the Southwest Florida Water Management District, which oversees these efforts in Pasco County.
[2] WateReuse Foundation, "A Reconnaissance-Level Quantitative Comparison of Reclaimed Water, Surface Water and Groundwater," Alexandria, Virginia, 2009.
[3] WateReuse Foundation, "Irrigation of Parks, Playgrounds, and Schoolyards with Reclaimed Water: Extent and Safety,"

that there is no evidence or documentation of any disease associated with water reuse systems in the United States or in other countries that have reasonable standards for reuse.[4]

Uses and Benefits of Reclaimed Water

Reclaimed water has many uses, including:

- Irrigation
- Street-sweeping operations
- Power generation
- Decorative fountains
- Fire protection
- Dust control
- Aquifer recharge
- Cooling or makeup water for a variety of industrial processes
- Natural system restoration

However, reclaimed water is not suitable for body-contact recreation (including swimming pools), cooking, drinking, or garden irrigation (without special equipment).

Benefits of reclaimed water use include lower costs than drinking water; reduction of fertilizer use (as some nutrients like nitrogen and phosphorus remain); lessening stress on drinking water supplies; and reduction of disposal into waterways, which can help reduce nutrient loads in bays and rivers.

State Objectives for Water Reuse

Reclaimed water has been promoted, developed, and used in Florida for over 40 years with no reclaimed water-related illnesses.[5] As of 2011, over 650 million gallons per day of reuse were utilized by 280,000 residential irrigation customers, 525 golf courses, 875 parks, and 320 schools in Florida.[6]

In 1989, the Legislature adopted extensive reclaimed water rules[7] and established "the encouragement and promotion of water conservation and reuse of reclaimed water" as formal state objectives.[8] Water reuse programs designed and operated in compliance with Florida's rules governing reuse are deemed protective of public health and environmental quality. These provisions also conclude that "reuse is a critical component of meeting the state's existing and future water supply needs while sustaining natural systems."[9] Further, the Legislature found that reuse benefits water, wastewater, and reuse customers.[10]

In 2001, the Florida Reclaimed Water Statement of Support was signed to encourage and promote water reuse, to work to overcome institutional and regulatory disincentives and funding constraints, to ensure protection of public health and environmental quality, and to promote public acceptance of water reuse in Florida. Participating agencies that signed the Statement include the DEP, Department of Agriculture and Consumer Services, Department of Health, Public Service Commission, Department of Community Affairs, U.S. Environmental Protection Agency, and all five water management districts.[11]

<u>Pasco County</u>

Alexandria, Virginia, 2005.

[4] York, D. W., L. Walker-Coleman, L. Williams, and P. Menendez, "Monitoring for Protozoan Pathogens in Reclaimed Water: Florida's Requirements and Experience," Proceedings of the 19th Annual WateReuse Symposium, WateReuse Association, Phoenix, AZ, 2004.

[5] York, D. W., "Water Reuse: Regulatory and Safety Perspectives," FWEA, 2006.

[6] Water Reuse Flyer, Southwest Florida Water Management District, available at http://www.swfwmd.state.fl.us/files/database/site_file_sets/118/Water_Reuse_flyer_PRINT_file.pdf.

[7] Chapter 62-610.100, Florida Administrative Code, 1989. Reuse of Reclaimed Water and Land Application.

[8] Sections 403.064(1) and 373.250, F.S.

[9] Section 403.064(1), F.S.

[10] Section 367.0817(3), F.S.

[11] Statement of Support for Water Reuse, available at http://www.dep.state.fl.us/water/reuse/docs/statement_of_support.pdf.

Pasco County Reclaimed Water System

The Pasco County Reclaimed Water System is permitted by DEP as a stand-alone reclaimed distribution and disposal system for treated wastewater effluent produced by county treatment facilities. All of the county's sewage flow is converted to reclaimed water by these sewage treatment facilities – there is no other disposal method for the county's wastewater. Therefore, the amount of reclaimed water cannot be meaningfully reduced as the amount is dependent on the county's water usage.

Currently, the county uses its reclaimed water for irrigation of lands, parks, and golf courses; industrial uses; and rapid infiltration basins. These uses recharge the groundwater system with no surface water discharge. However, demand for these authorized irrigation uses decreases in the rainy season, creating a surplus of reclaimed water. Therefore, the county wants to add additional uses for the reuse system to effectively use the approximately five million gallon surplus. Alternatively, the county will have to build an additional rapid rate infiltration basin system for the five million gallon surplus. This additional storage capacity for use in the rainy season would require property acquisition, engineering, and construction at a cost to taxpayers of approximately $23,364,870.

Natural Rehydration System

Specifically, the county is interested in natural system rehydration and treatment to enhance wetland ecosystems that have been impacted or altered due to drainage, pumping, or other factors. The county intends to implement a plan to rehydrate certain surface water bodies which are not meeting minimum water levels, such as Crews Lake, or that are otherwise adversely impacted, and whose natural aquatic ecosystems might be restored, recovered, or enhanced by reclaimed water.

Law Limiting Discharges

Implementing an environmental restoration processes using reclaimed water via natural system rehydration and recharge requires discharge into coastal waters. This is currently prohibited by law. Chapter 99-166, L.O.F., forbids new discharges from existing sewage treatment facilities into Pasco County coastal waters with two exceptions. First, the DEP may grant an exception if there is no other practical alternative and the wastewater will undergo treatment before being discharged. Second, the DEP may grant an exception if the discharge is a limited wet weather surface discharge. For both existing exceptions, the discharge must not result in violating water quality standards.

Additional Exemption Sought

Natural system rehydration as an additional use for reclaimed water requires amending the restrictions placed on sewage treatment facility discharges into Pasco County coastal waters by ch. 99-166, L.O.F. The exemption provides for a more cost-effective and environmentally acceptable means of management and disposal of excess reclaimed water flows from Pasco County's Master Reuse System.

Proponents argue that this exemption will allow Pasco County Utilities to forego acquiring property to construct additional facilities to manage the reclaimed water supply. That cost avoidance will allow the utility to maintain its current level of service without raising rates. Additionally, proponents point to the economic stimulus of similar wetland projects[12] around Florida, which have become tourist attractions for birders, wildlife enthusiasts, and photographers.

Advantages to the local government, besides the cost-avoidance advantage for Pasco County Utilities, include the Pasco County Environmental Lands Acquisition and Management Program (ELAMP) not having to maintain the dry lake beds and other depleted aquatic lands as terrestrial properties. The mowing, spraying, and routine maintenance of those areas would become unnecessary the impacted wetlands and lakes recover and rehydrate. Additionally, the Pasco County Parks Department will

[12] Wakodahatchee Wetlands and the Green Cay Wetlands in Palm Beach County welcome more than a million visitors annually.

benefit with the recovery of Crews Lake as the amenities (fishing pier, boat ramp, and canoe/kayak launch) at Crews Lake Park will once again be usable. Those features will increase patronage of the park and will generate increased revenues for the county's parks system.

Effect of Proposed Changes

The proposed amendment to ch. 99-166, L.O.F., would provide the necessary exemption for Pasco County to pursue natural aquatic ecosystems rehydration projects with reclaimed water.

B. SECTION DIRECTORY:

Section 1: Amends ch. 99-166, L.O.F., authorizing an additional exception to the rules forbidding new sewage treatment discharges into Pasco County coastal waters.

Section 2: Provides an effective date.

II. NOTICE/REFERENDUM AND OTHER REQUIREMENTS

A. NOTICE PUBLISHED? Yes [X] No []

IF YES, WHEN? December 18, 2013

WHERE? The *Tampa Bay Times* and *Pasco Times*, daily newspapers published in Pasco County.

B. REFERENDUM(S) REQUIRED? Yes [] No [X]

IF YES, WHEN?

C. LOCAL BILL CERTIFICATION FILED? Yes, attached [X] No []

D. ECONOMIC IMPACT STATEMENT FILED? Yes, attached [X] No []

III. COMMENTS

A. CONSTITUTIONAL ISSUES:

None.

B. RULE-MAKING AUTHORITY:

None.

C. DRAFTING ISSUES OR OTHER COMMENTS:

None.

IV. AMENDMENTS/ COMMITTEE SUBSTITUTE CHANGES

N/A